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Box 8500, Ottawa, Canada, K1G 3H9 • Telephone (613) 996-2321
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NEPAL TACKLES EROSION PROBLEMS

by KRISHNA PRASHAD SIGDYAL

Perched upriver from neighbouring, India and Bangladesh, the Himalyan Kingdom of Nepal is in a unique position to directly influence the environmental conditions in these countries. Changing ecological conditions in Nepal are going to affect the course of rivers flowing into the South-Asian sub-continent, and the agriculture and vegetation that form the mainstay of millions of people there.

The landlocked kingdom that boasted forests over two-thirds of her surface only three decades ago, now has less than a third -- 4.5 million hectares -- left under trees. The destruction of the forests is going on so rapidly that Nepal is likely to be almost totally denuded by the year 2000. And because of the tree felling in the hills that rise over more than half the country, some 240 million cubic metres of Nepalese topsoil are washed down to India and Bangladesh each year.

Ninety-five percent of all forest products used in Nepal consists of fuelwood, the source of 87 percent of the country's heat energy. The country's population of 13 million, which is growing at a rate of 2.1 percent annually, consumes one cubic metre of fuelwood per head per year. Although Nepal has an estimated hydro potential of 83,000 megawatts, the total power generated so far is less than 50 megawatts and no coal deposits have been found.

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Nepal's cattle population of around ten million (a third of it considered surplus) is also a big part of the ecological picture. About 75 percent of the fodder comes from the forest and grass lands. Even if the ban on cow slaughter imposed by the law (Nepal is a Hindu state) is lifted, it is doubtful that the number of cattle will be reduced as they serve a useful purpose. While milk productivity may be low, cowdung is the only fertilizer available for the near-subsistence terrace farming in the hills.

Most of the sub-continent's annual rainfall pours down during the three-month monsoon season. With the felling of trees in the Himalyas and the lower hills of Nepal, the land cannot assimilate as much of this seasonal rain as it once did. The moisture level in the soil is subsequently falling, leading to ecological disruptions such as a decline in the recycling of vegetation and the consequent desertification, and emigration of birds that help keep insect populations in check. An estimated 72 percent of the rain water is now lost to the river and the seas.

Desertification of the mountain area leads to soil erosion which in turn silts up the rivers, causing flood damage and misery. The rivers are said to be silting up at the rate of 15 to 30 centimetres a year. Deforestation will accelerate soil erosion and, with the passage of aeons, the very mountains may be washed down to the sea and the rivers choked.

Since 1967, however, close to 20,000 hectares have been re-planted with saplings to reverse this process. Under an ambitious Community Forestry Development Project to be undertaken jointly by Nepal, the UN Food and Agriculture Organization, and the UN Development Programme, and with probable financing from the World Bank, forests in the hill districts are to be cultivated to increase the supply of fuel, fodder and wood for construction. Soil erosion will be prevented, spring water supplies ensured in the villages, and self-reliance encouraged among villagers. The scheme, projected for 1980-1985, is only the first slice of a 20 year Community Forestry Programme. It envisages the afforestation of over 11,750 hectares, the protection of 39,000 hectares of existing forests, and the planting of a million trees by people, on their own land.

A sense of continuity should be given to the project by extending moral and financial support. Other countries in South Asia may not be able to contribute financially, but they can show their concern at international forums so that much-needed help is forthcoming. Countries of the region can thus save themselves from colossal environmental damage while preserving the potential of their rivers.

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